



JUL 2 2 2015

Brent Winn Aera Energy LLC PO Box 11164 Bakersfield, CA 93389

Re:

Notice of Final Action - Minor Title V Permit Modification

District Facility # S-1548

Project # 1144591

Dear Mr. Winn:

The Air Pollution Control Officer has modified the Title V permit for Aera Energy LLC by incorporating Authorities to Construct (ATCs S-1548-171-7, '-172-8, '-172-9, '-173-8, '-173-9, '-174-8, '-174-9, '-175-8, and '-175-9. Projects S-1134793, S-1141603, and S-1143559 authorized a revised location of operation, removal of a Specifiic Limiting Condition (SLC) and increases in number of fugitve emissions components and VOC limit for '-172 through '-175 and lowering of the NOx emissions limit for Rule 4702 compliance for S-1548-171.

Enclosed is the modified Title V permit. The application and proposal were sent to US EPA Region IX on June 17, 2015. No comments were received following the District's preliminary decision on this project.

Thank you for your cooperation in this matter. If you have any questions, please contact Mr. Leonard Scandura, Permit Services Manager, at (661) 392-5500.

Sincerely,

Arnaud Marjollet

Director of Permit Services

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AM:rue

Enclosures

Gerardo C. Rios, EPA (w/enclosure) via email CC:

Seved Sadredin

Executive Director/Air Pollution Control Officer

PERMIT UNIT: S-1548-171-8 **EXPIRATION DATE:** 05/31/2016

SECTION: NE13 TOWNSHIP: 28S RANGE: 20E

EQUIPMENT DESCRIPTION:

1,215 BHP WAUKESHA MODEL L-5790 GSI NATURAL GAS-FIRED IC ENGINE (SERIAL # C-12312/1) WITH 3-WAY CATALYST AND AIR/FUEL RATIO CONTROLLER DRIVING A GAS COMPRESSOR (MID BELRIDGE COMPRESSOR STATION #26)

PERMIT UNIT REQUIREMENTS

- 1. When this unit is not operated (dormant for Rule 4701 and 4702) the fuel line shall be physically disconnected from this unit. [District Rule 2080] Federally Enforceable Through Title V Permit
- 2. A source test to demonstrate compliance with NOx, CO and VOC emission limits shall be performed within 60 days of recommencing operation of this unit. [District Rule 4702] Federally Enforceable Through Title V Permit
- 3. Permittee shall submit written notification to the District upon designating the unit as dormant or active. [District Rule 1070]
- 4. The engine shall only burn natural gas with fuel gas sulfur concentration (as H2S) not exceeding 1.0 grains/100 dscf. [District NSR Rule] Federally Enforceable Through Title V Permit
- 5. The engine shall be equipped with a positive crankcase ventilation (PCV) system or a crankcase emissions control device of at least 90% control efficiency. [District NSR Rule] Federally Enforceable Through Title V Permit
- 6. This engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702, 5.6.6] Federally Enforceable Through Title V Permit
- 7. VOC emissions from fugitive components associated with this engine/compressor shall not exceed 3.9 lb VOC per day. [District NSR Rule] Federally Enforceable Through Title V Permit
- 8. Emissions from IC engine shall not exceed any of the following: NOx (as NO2) -11 ppmv @ 15% O2, VOC 30 ppmv @ 15% O2, CO 70 ppmv @ 15% O2, PM10 0.003 g/hp-hr, or SOx (as SO2) 0.0108 g/hp-hr. [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit
- 9. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Source testing emissions for this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (Amended December 16, 1993), of 3 thirty-minute test runs for NOx. [District Rules 4702 and 2520, 9.3.2] Federally Enforceable Through Title V Permit
- 10. District witnessed or approved compliance source testing for NOx, VOC, and CO emissions shall be demonstrated within 60 days of startup and not less than once every 24 months thereafter. [District Rule 4702] Federally Enforceable Through Title V Permit
- 11. Source testing shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1080] Federally Enforceable Through Title V Permit
- 12. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.

Facility Name: AERA ENERGY LLC

Location: LIGHT OIL WESTERN STATIONARY SOURCE, CA \$-1548-171-8: Jul 22 2015 11:40AM -- EDGEHILR

- 13. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
- 14. The following test methods shall be used: NOx (ppmv) EPA Method 7E or ARB Method 100, CO (ppmv) EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) -EPA Method 25 or EPA Method 18 referenced as methane, fuel gas sulfur content - ASTM D 3246 or double GC for total sulfur content, and EPA Method 21 for fugitive components. [District Rule 1081] Federally Enforceable Through Title V Permit
- 15. Emissions for this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (Amended December 16, 1993), of 3 thirty minute test runs for NOx and CO. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
- 16. The permittee shall monitor and record the stack concentration of NOx (as NO2), CO, and O2 at least once every calendar month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702, 5.6.1.1, 5.6.9, and 6.5.7] Federally Enforceable Through Title V Permit
- 17. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the permitted emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1-hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702, 6.5.4] Federally Enforceable Through Title V Permit
- 18. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702, 5.6.9, 6.5.7] Federally Enforceable Through Title V Permit
- 19. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702, 6.5.8] Federally Enforceable Through Title V Permit
- 20. This engine shall be operated and maintained in proper operating condition per the Inspection and Maintenance (I & M) plan submitted to the District. [District Rule 4702, 6.5 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
- 21. The permittee shall update the I & M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I & M plan and must submit an updated I & M plan to the APCO no later than 14 days after the change for approval. The date and time of the change to the I & M plan shall be recorded in the engine's operating log. For modifications, the revised I & M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I & M plan at any time. [District Rule 4702, 6.5.9] Federally Enforceable Through Title V Permit
- 22. Particulate emissions shall not exceed at the point of discharge, 0.1 gr/dscf. [District Rule 4201, 3.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE These terms and conditions are part of the Facility-wide Permit to Operate.

Facility Name: AERA ENERGY LLC

Location: LIGHT OIL WESTERN STATIONARY SOURCE,CA \$-1548-171-8: Jul 22 2015 11:40AM - EDGEHILR

- 23. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [District Rule 4801 and Kern County Rule 407] Federally Enforceable Through Title V Permit
- 24. If the IC engine is fired on certified natural gas, then permittee document sulfur content by maintaining file copies of all natural gas bills or supplier's certification of sulfur content. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
- 25. If the IC engine is not fired on certified natural gas, then the sulfur content of the natural gas being fired in the engine shall be tested using ASTM D 3246 or double GC for total sulfur content. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
- 26. If the engine is not fired on certified natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
- 27. Leaks from valves, connectors, and other components (not including compressor seals) shall be defined as a reading of methane on a portable hydrocarbon detection instrument in excess of 100 ppmv above background when measured as close as possible to the potential source. [District NSR Rule] Federally Enforceable Through Title V Permit
- 28. Leaks from compressor seals shall be defined as a reading of methane on a portable hydrocarbon detection instrument in excess of 500 ppmy above background when measured as close as possible to the potential source. [District NSR] Rule] Federally Enforceable Through Title V Permit
- 29. Components shall be screened and inspected with a minimum of 25% of the components inspected each quarter. Any leak greater than 500 ppmy for compressor seals and 100 ppmy for valves, connectors, and other components, when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Method 21 or leaking at a rate of greater than 3 drops of liquid per minute, shall be repaired in a manner consistent with the procedures specified in Section 5.3 of Rule 4403. This requirement shall not apply to inaccessible or unsafe-to-access components as identified in the Operator Management Plan pursuant to Section 5.2.4 of Rule 4403. [District NSR Rule] Federally Enforceable Through Title V Permit
- 30. Components to be screened shall be identified and categorized according to the following equipment types: connectors, flanges, open-ended lines (sample connections, drains, bleed valves, etc.) pump seals, valves with visible actuators and other (pressure relief devices, compressor seals, meters, etc.). Components shall be further identified and categorized according to the following types of service: gas/light liquid and heavy liquid service. [District NSR Rule] Federally Enforceable Through Title V Permit
- 31. VOC content of gas processed shall not exceed 37% by weight. Permittee shall maintain a written record of VOC content (sampled not less than annually) and shall make such records available for District inspection upon request for a period of two years. [District Rule 1070 and District NSR Rule] Federally Enforceable Through Title V Permit
- 32. VOC content of gas shall be measured using ASTM D1945-96, EPA Method 25 or EPA Method 18 referenced as methane. [District NSR Rule] Federally Enforceable Through Title V Permit
- 33. The permittee shall record the inlet temperature to the catalytic converter on a daily basis. [District Rule 2520, 9.4.2 and 40 CFR 64] Federally Enforceable Through Title V Permit
- 34. The inlet temperature of the catalyst shall be maintained between 750 F and 1250 F. [40 CFR 64] Federally Enforceable Through Title V Permit
- 35. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR Part 64.7. [40 CFR 64] Federally Enforceable Through Title V Permit
- 36. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR 64] Federally Enforceable Through Title V Permit
- 37. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR 64] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE These terms and conditions are part of the Facility-wide Permit to Operate.

Facility Name: AERA ENERGY LLC

- 38. Permittee shall maintain an engine operating log, on a monthly basis, which includes the following information; total hours of operation, type and quantity of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance with Rule 4702. [District Rules 1070 and 2520, 9.4.2] Federally Enforceable Through Title V Permit
- 39. All records required by this permit shall be maintained for a period of five years and shall be made readily available for District inspection upon request. [District Rule 4702, 6.2.2 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
- 40. The permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
- 41. Written records of the engine idling time are not required. Compliance with idle-time limit shall be demonstrated by maintaining a copy of a work practice standard that includes the minimization of engine idling time. [District Rule 2520, 9.4] Federally Enforceable Through Title V Permit
- 42. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
- 43. The engine's oil and filter shall be changed every 2,160 hours of operation or every 12 months, whichever comes first. Permittee may utilize the oil analysis program specified in the Inspection and Maintenance (I&M) plan to extend the oil change requirement. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
- 44. The engine's air filter shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
- 45. The engine's hoses and belts shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT: S-1548-172-11 EXPIRATION DATE: 05/31/2016

SECTION: NE32 TOWNSHIP: 29S RANGE: 21E

EQUIPMENT DESCRIPTION:

1,478 BHP WAUKESHA MODEL 7042 GSI NATURAL GAS-FIRED IC ENGINE WITH 3-WAY CATALYST, AIR/FUEL RATIO CONTROLLER, AND POSITIVE CRANKCASE VENTILATION SYSTEM DRIVING A GAS COMPRESSOR (SOUTH BELRIDGE COMPRESSOR STATION #50)

PERMIT UNIT REQUIREMENTS

- When this unit is not operated (dormant for Rule 4701 and 4702) the fuel line shall be physically disconnected from this unit. [District Rule 2080] Federally Enforceable Through Title V Permit
- A source test to demonstrate compliance with NOx, CO and VOC emission limits shall be performed within 60 days of recommencing operation of this unit. [District Rule 4702] Federally Enforceable Through Title V Permit
- Upon seven days written notice to the District this engine may be designated as a dormant emissions unit or an active emissions unit. [District Rule 1070] Federally Enforceable Through Title V Permit
- This unit shall only be operated at the South Belridge Compressor Station #50 and the Lost Hills 1 Compressor Station. [District Rules 2201 and 4201] Federally Enforceable Through Title V Permit
- The engine shall only burn natural gas with fuel gas sulfur concentration (as H2S) not exceeding 1.0 grains/100 dscf. [District NSR Rule] Federally Enforceable Through Title V Permit
- The engine shall be equipped with a positive crankcase ventilation (PCV) system or a crankcase emissions control device of at least 90% control efficiency. [District NSR Rule] Federally Enforceable Through Title V Permit
- This engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702, 5.6.6] Federally Enforceable Through Title V Permit
- VOC emissions from fugitive components shall not exceed 10.8 lb VOC per day. [District Rule 2201] Federally Enforceable Through Title V Permit
- All Rule 4409 applicable components associated with the compressors shall comply with all Rule 4409 requirements listed in the facility wide permit. [District Rule 4409] Federally Enforceable Through Title V Permit
- 10. Emissions from IC engine shall not exceed any of the following: NOx (as NO2) 25 ppmv @ 15% O2, VOC 30 ppmv @ 15% O2, CO - 70 ppmv @ 15% O2, PM10 - 0.003 g/hp-hr, or SOx (as SO2) - 0.0108 g/hp-hr. [District NSR Rule] Federally Enforceable Through Title V Permit
- 11. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Source testing emissions for this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (Amended December 16, 1993), of 3 thirty-minute test runs for NOx. [District Rules 4702 and 2520, 9.3.2] Federally Enforceable Through Title V Permit
- 12. District witnessed or approved compliance source testing for NOx, VOC, and CO emissions shall be demonstrated not less than once every 24 months. [District NSR Rule] Federally Enforceable Through Title V Permit
- 13. Source testing shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE These terms and conditions are part of the Facility-wide Permit to Operate.

Facility Name: AERA ENERGY LLC

Location: LIGHT OIL WESTERN STATIONARY SOURCE, CA S-1548-172-11: Jul 22 2015 11:40AM - EDGEHILR

- 14. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
- 15. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
- 16. The following test methods shall be used: NOx (ppmv) EPA Method 7E or ARB Method 100, CO (ppmv) EPA Method 10 or ARB Method 100, stack gas oxygen EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) EPA Method 25 or EPA Method 18 referenced as methane, fuel gas sulfur content ASTM D 3246 or double GC for total sulfur content, and EPA Method 21 for fugitive components. [District Rule 1081] Federally Enforceable Through Title V Permit
- 17. Emissions for this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (Amended December 16, 1993), of 3 thirty minute test runs for NOx and CO. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
- 18. The permittee shall monitor and record the stack concentration of NOx (as NO2), CO, and O2 at least once every calendar month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702, 5.6.1.1, 5.6.9, and 6.5.7] Federally Enforceable Through Title V Permit
- 19. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the permitted emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1-hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702, 6.5.4] Federally Enforceable Through Title V Permit
- 20. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702, 5.6.9, 6.5.7] Federally Enforceable Through Title V Permit
- 21. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702, 6.5.8] Federally Enforceable Through Title V Permit
- 22. This engine shall be operated and maintained in proper operating condition per the Inspection and Maintenance (I & M) plan submitted to the District. [District Rule 4702, 6.5 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

Location: LIGHT OIL WESTERN STATIONARY SOURCE, CA 8-1548-172-11: Jul 22 2015 11:40AM – EDGEHILR

- 23. The permittee shall update the I & M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I & M plan and must submit an updated I & M plan to the APCO no later than 14 days after the change for approval. The date and time of the change to the I & M plan shall be recorded in the engine's operating log. For modifications, the revised I & M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I & M plan at any time. [District Rule 4702, 6.5.9] Federally Enforceable Through Title V Permit
- 24. Particulate emissions shall not exceed at the point of discharge, 0.1 gr/dscf. [District Rule 4201, 3.1] Federally Enforceable Through Title V Permit
- 25. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [District Rule 4801 and Kern County Rule 407] Federally Enforceable Through Title V Permit
- 26. If the IC engine is fired on certified natural gas, then permittee document sulfur content by maintaining file copies of all natural gas bills or supplier's certification of sulfur content. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
- 27. If the IC engine is not fired on certified natural gas, then the sulfur content of the natural gas being fired in the engine shall be tested using ASTM D 3246 or double GC for total sulfur content. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
- 28. If the engine is not fired on certified natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
- 29. Leaks from valves, connectors, and other components (not including compressor seals) shall be defined as a reading of methane on a portable hydrocarbon detection instrument in excess of 100 ppmv above background when measured as close as possible to the potential source. [District NSR Rule] Federally Enforceable Through Title V Permit
- 30. Leaks from compressor seals shall be defined as a reading of methane on a portable hydrocarbon detection instrument in excess of 500 ppmv above background when measured as close as possible to the potential source. [District NSR Rule] Federally Enforceable Through Title V Permit
- 31. Components shall be screened and inspected with a minimum of 25% of the components inspected each quarter. Any leak greater than 500 ppmv for compressor seals and 100 ppmv for valves, connectors, and other components, when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Method 21 or leaking at a rate of greater than 3 drops of liquid per minute, shall be repaired in a manner consistent with the procedures specified in Section 5.3 of Rule 4403. This requirement shall not apply to inaccessible or unsafe-to-access components as identified in the Operator Management Plan pursuant to Section 5.2.4 of Rule 4403. [District NSR Rule] Federally Enforceable Through Title V Permit
- 32. Components to be screened shall be identified and categorized according to the following equipment types: connectors, flanges, open-ended lines (sample connections, drains, bleed valves, etc.) pump seals, valves with visible actuators and other (pressure relief devices, compressor seals, meters, etc.). Components shall be further identified and categorized according to the following types of service: gas/light liquid and heavy liquid service. [District NSR Rule] Federally Enforceable Through Title V Permit
- 33. VOC content of gas processed shall not exceed 40% by weight. Permittee shall maintain a written record of VOC content (sampled not less than annually) and shall make such records available for District inspection upon request for a period of two years. [District Rule 1070 and District NSR Rule] Federally Enforceable Through Title V Permit
- 34. VOC content of gas shall be measured using ASTM D1945, EPA Method 25 or EPA Method 18 referenced as methane. [District NSR Rule] Federally Enforceable Through Title V Permit
- 35. The permittee shall record the inlet temperature to the catalytic converter on a daily basis. [District Rule 2520, 9.4.2 and 40 CFR 64] Federally Enforceable Through Title V Permit

- 36. The inlet temperature of the catalyst shall be maintained between 750 F and 1250 F. [40 CFR 64] Federally Enforceable Through Title V Permit
- 37. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR Part 64.7. [40 CFR 64] Federally Enforceable Through Title V Permit
- 38. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR 64] Federally Enforceable Through Title V Permit
- 39. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR 64] Federally Enforceable Through Title V Permit
- 40. Permittee shall maintain an engine operating log, on a monthly basis, which includes the following information; total hours of operation, type and quantity of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance with Rule 4702. [District Rules 1070 and 2520, 9.4.2] Federally Enforceable Through Title V Permit
- 41. All records required by this permit shall be maintained for a period of five years and shall be made readily available for District inspection upon request. [District Rule 4702, 6.2.2 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
- 42. The permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
- 43. Written records of the engine idling time are not required. Compliance with idle-time limit shall be demonstrated by maintaining a copy of a work practice standard that includes the minimization of engine idling time. [District Rule 2520, 9.4] Federally Enforceable Through Title V Permit
- 44. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
- 45. The engine's oil and filter shall be changed every 2,160 hours of operation or every 12 months, whichever comes first. Permittee may utilize the oil analysis program specified in the Inspection and Maintenance (I&M) plan to extend the oil change requirement. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
- 46. The engine's air filter shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
- 47. The engine's hoses and belts shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

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PERMIT UNIT: S-1548-173-11 EXPIRATION DATE: 05/31/2016

SECTION: NE32 TOWNSHIP: 29S RANGE: 21E

EQUIPMENT DESCRIPTION:

1,478 HBP WAUKESHA MODEL 7042 GSI NATURAL GAS-FIRED IC ENGINE WITH 3-WAY CATALYST, AIR/FUEL RATIO CONTROLLER, AND POSITIVE CRANKCASE VENTILATION SYSTEM DRIVING A GAS COMPRESSOR (SOUTH BELRIDGE COMPRESSOR STATION #50)

PERMIT UNIT REQUIREMENTS

- When this unit is not operated (dormant for Rule 4701 and 4702) the fuel line shall be physically disconnected from this unit. [District Rule 2080] Federally Enforceable Through Title V Permit
- A source test to demonstrate compliance with NOx, CO and VOC emission limits shall be performed within 60 days of recommencing operation of this unit. [District Rule 4702] Federally Enforceable Through Title V Permit
- Upon seven days written notice to the District this engine may be designated as a dormant emissions unit or an active emissions unit. [District Rule 1070] Federally Enforceable Through Title V Permit
- The engine shall only burn natural gas with fuel gas sulfur concentration (as H2S) not exceeding 1.0 grains/100 dscf. [District NSR Rule] Federally Enforceable Through Title V Permit
- The engine shall be equipped with a positive crankcase ventilation (PCV) system or a crankcase emissions control device of at least 90% control efficiency. [District NSR Rule] Federally Enforceable Through Title V Permit
- This engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702, 5.6.6] Federally Enforceable Through Title V Permit
- VOC emissions from fugitive components shall not exceed 13.8 lb VOC per day. [District Rule 2201] Federally Enforceable Through Title V Permit
- All Rule 4409 applicable components associated with the compressors shall comply with all Rule 4409 requirements listed in the facility wide permit. [District Rule 4409] Federally Enforceable Through Title V Permit
- Emissions from IC engine shall not exceed any of the following: NOx (as NO2) 25 ppmv @ 15% O2, VOC 30 ppmy @ 15% O2, CO - 70 ppmy @ 15% O2, PM10 - 0.003 g/hp-hr, or SOx (as SO2) - 0.0108 g/hp-hr. [District NSR Rule] Federally Enforceable Through Title V Permit
- 10. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Source testing emissions for this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (Amended December 16, 1993), of 3 thirty-minute test runs for NOx. [District Rules 4702 and 2520, 9.3.2] Federally Enforceable Through Title V Permit
- 11. District witnessed or approved compliance source testing for NOx, VOC, and CO emissions shall be demonstrated not less than once every 24 months. [District NSR Rule] Federally Enforceable Through Title V Permit
- 12. Source testing shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE These terms and conditions are part of the Facility-wide Permit to Operate.

Facility Name: AERA ENERGY LLC

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- 13. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
- 14. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
- 15. The following test methods shall be used: NOx (ppmv) EPA Method 7E or ARB Method 100, CO (ppmv) EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) -EPA Method 25 or EPA Method 18 referenced as methane, fuel gas sulfur content - ASTM D 3246 or double GC for total sulfur content, and EPA Method 21 for fugitive components. [District Rule 1081] Federally Enforceable Through Title V Permit
- 16. Emissions for this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (Amended December 16, 1993), of 3 thirty minute test runs for NOx and CO. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
- 17. The permittee shall monitor and record the stack concentration of NOx (as NO2), CO, and O2 at least once every calendar month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies, [District Rule 4702, 5.6.1.1, 5.6.9, and 6.5.7] Federally Enforceable Through Title V Permit
- 18. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the permitted emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1-hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702, 6.5.4] Federally Enforceable Through Title V Permit
- 19. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702, 5.6.9, 6.5.7] Federally Enforceable Through Title V Permit
- 20. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702, 6.5.8] Federally Enforceable Through Title V Permit
- 21. This engine shall be operated and maintained in proper operating condition per the Inspection and Maintenance (I & M) plan submitted to the District. [District Rule 4702, 6.5 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

- 22. The permittee shall update the I & M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I & M plan and must submit an updated I & M plan to the APCO no later than 14 days after the change for approval. The date and time of the change to the I & M plan shall be recorded in the engine's operating log. For modifications, the revised I & M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I & M plan at any time. [District Rule 4702, 6.5.9] Federally Enforceable Through Title V Permit
- 23. Particulate emissions shall not exceed at the point of discharge, 0.1 gr/dscf. [District Rule 4201, 3.1] Federally Enforceable Through Title V Permit
- 24. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [District Rule 4801 and Kern County Rule 407] Federally Enforceable Through Title V Permit
- 25. If the IC engine is fired on certified natural gas, then permittee document sulfur content by maintaining file copies of all natural gas bills or supplier's certification of sulfur content. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
- 26. If the IC engine is not fired on certified natural gas, then the sulfur content of the natural gas being fired in the engine shall be tested using ASTM D 3246 or double GC for total sulfur content. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
- 27. If the engine is not fired on certified natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
- 28. Leaks from valves, connectors, and other components (not including compressor seals) shall be defined as a reading of methane on a portable hydrocarbon detection instrument in excess of 100 ppmv above background when measured as close as possible to the potential source. [District NSR Rule] Federally Enforceable Through Title V Permit
- 29. Leaks from compressor seals shall be defined as a reading of methane on a portable hydrocarbon detection instrument in excess of 500 ppmv above background when measured as close as possible to the potential source. [District NSR Rule] Federally Enforceable Through Title V Permit
- 30. Components shall be screened and inspected with a minimum of 25% of the components inspected each quarter. Any leak greater than 500 ppmv for compressor seals and 100 ppmv for valves, connectors, and other components, when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Method 21 or leaking at a rate of greater than 3 drops of liquid per minute, shall be repaired in a manner consistent with the procedures specified in Section 5.3 of Rule 4403. This requirement shall not apply to inaccessible or unsafe-to-access components as identified in the Operator Management Plan pursuant to Section 5.2.4 of Rule 4403. [District NSR Rule] Federally Enforceable Through Title V Permit
- 31. Components to be screened shall be identified and categorized according to the following equipment types: connectors, flanges, open-ended lines (sample connections, drains, bleed valves, etc.) pump seals, valves with visible actuators and other (pressure relief devices, compressor seals, meters, etc.). Components shall be further identified and categorized according to the following types of service: gas/light liquid and heavy liquid service. [District NSR Rule] Federally Enforceable Through Title V Permit
- 32. VOC content of gas processed shall not exceed 70% by weight. Permittee shall maintain a written record of VOC content (sampled not less than annually) and shall make such records available for District inspection upon request for a period of two years. [District Rule 1070 and District NSR Rule] Federally Enforceable Through Title V Permit
- 33. VOC content of gas shall be measured using ASTM D1945-96, EPA Method 25 or EPA Method 18 referenced as methane. [District NSR Rule] Federally Enforceable Through Title V Permit
- 34. The permittee shall record the inlet temperature to the catalytic converter on a daily basis. [District Rule 2520, 9.4.2 and 40 CFR 64] Federally Enforceable Through Title V Permit

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- 35. The inlet temperature of the catalyst shall be maintained between 750 F and 1250 F. [40 CFR 64] Federally Enforceable Through Title V Permit
- 36. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR Part 64.7. [40 CFR 64] Federally Enforceable Through Title V Permit
- 37. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR 64] Federally Enforceable Through Title V Permit
- 38. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR 64] Federally Enforceable Through Title V Permit
- 39. Permittee shall maintain an engine operating log, on a monthly basis, which includes the following information; total hours of operation, type and quantity of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance with Rule 4702. [District Rules 1070 and 2520, 9.4.2] Federally Enforceable Through Title V Permit
- 40. All records required by this permit shall be maintained for a period of five years and shall be made readily available for District inspection upon request. [District Rule 4702, 6.2.2 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
- 41. The permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
- 42. Written records of the engine idling time are not required. Compliance with idle-time limit shall be demonstrated by maintaining a copy of a work practice standard that includes the minimization of engine idling time. [District Rule 2520, 9.4] Federally Enforceable Through Title V Permit
- 43. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
- 44. The engine's oil and filter shall be changed every 2,160 hours of operation or every 12 months, whichever comes first. Permittee may utilize the oil analysis program specified in the Inspection and Maintenance (I&M) plan to extend the oil change requirement. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
- 45. The engine's air filter shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
- 46. The engine's hoses and belts shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

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PERMIT UNIT: S-1548-174-11 **EXPIRATION DATE: 05/31/2016**

SECTION: NE32 TOWNSHIP: 29S RANGE: 21E

EQUIPMENT DESCRIPTION:

1,478 BHP WAUKESHA MODEL 7042 GSI NATURAL GAS-FIRED IC ENGINE WITH 3-WAY CATALYST, AIR/FUEL RATIO CONTROLLER, AND POSITIVE CRANKCASE VENTILATION SYSTEM DRIVING A GAS COMPRESSOR (SOUTH BELRIDGE COMPRESSOR STATION #50)

PERMIT UNIT REQUIREMENTS

- When this unit is not operated (dormant for Rule 4701 and 4702) the fuel line shall be physically disconnected from this unit. [District Rule 2080] Federally Enforceable Through Title V Permit
- A source test to demonstrate compliance with NOx, CO and VOC emission limits shall be performed within 60 days of recommencing operation of this unit. [District Rule 4702] Federally Enforceable Through Title V Permit
- Upon seven days written notice to the District this engine may be designated as a dormant emissions unit or an active emissions unit. [District Rule 1070] Federally Enforceable Through Title V Permit
- The engine shall only burn natural gas with fuel gas sulfur concentration (as H2S) not exceeding 1.0 grains/100 dscf. [District NSR Rule] Federally Enforceable Through Title V Permit
- The engine shall be equipped with a positive crankcase ventilation (PCV) system or a crankcase emissions control device of at least 90% control efficiency. [District NSR Rule] Federally Enforceable Through Title V Permit
- This engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702, 5.6.6] Federally Enforceable Through Title V Permit
- VOC emissions from fugitive components shall not exceed 12.8 lb VOC per day. [District Rule 2201] Federally Enforceable Through Title V Permit
- All Rule 4409 applicable components associated with the compressors shall comply with all Rule 4409 requirements listed in the facility wide permit. [District Rule 4409] Federally Enforceable Through Title V Permit
- Emissions from IC engine shall not exceed any of the following: NOx (as NO2) 25 ppmv @ 15% O2, VOC 30 ppmv @ 15% O2, CO - 70 ppmv @ 15% O2, PM10 - 0.003 g/hp-hr, or SOx (as SO2) - 0.0108 g/hp-hr. [District NSR Rule] Federally Enforceable Through Title V Permit
- 10. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Source testing emissions for this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (Amended December 16, 1993), of 3 thirty-minute test runs for NOx. [District Rules 4702 and 2520, 9.3.2] Federally Enforceable Through Title V Permit
- 11. District witnessed or approved compliance source testing for NOx, VOC, and CO emissions shall be demonstrated not less than once every 24 months. [District NSR Rule] Federally Enforceable Through Title V Permit
- 12. Source testing shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE These terms and conditions are part of the Facility-wide Permit to Operate.

Facility Name: AERA ENERGY LLC

LIGHT OIL WESTERN STATIONARY SOURCE,CA 8-1548-174-11: Jul 22 2015 11:40AM – EDGEHILR

- 13. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
- 14. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
- 15. The following test methods shall be used: NOx (ppmv) EPA Method 7E or ARB Method 100, CO (ppmv) EPA Method 10 or ARB Method 100, stack gas oxygen EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) EPA Method 25 or EPA Method 18 referenced as methane, fuel gas sulfur content ASTM D 3246 or double GC for total sulfur content, and EPA Method 21 for fugitive components. [District Rule 1081] Federally Enforceable Through Title V Permit
- 16. Emissions for this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (Amended December 16, 1993), of 3 thirty minute test runs for NOx and CO. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
- 17. The permittee shall monitor and record the stack concentration of NOx (as NO2), CO, and O2 at least once every calendar month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702, 5.6.1.1, 5.6.9, and 6.5.7] Federally Enforceable Through Title V Permit
- 18. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the permitted emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1-hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702, 6.5.4] Federally Enforceable Through Title V Permit
- 19. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702, 5.6.9, 6.5.7] Federally Enforceable Through Title V Permit
- 20. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702, 6.5.8] Federally Enforceable Through Title V Permit
- 21. This engine shall be operated and maintained in proper operating condition per the Inspection and Maintenance (I & M) plan submitted to the District. [District Rule 4702, 6.5 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

- 22. The permittee shall update the I & M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I & M plan and must submit an updated I & M plan to the APCO no later than 14 days after the change for approval. The date and time of the change to the I & M plan shall be recorded in the engine's operating log. For modifications, the revised I & M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I & M plan at any time. [District Rule 4702, 6.5.9] Federally Enforceable Through Title V Permit
- 23. Particulate emissions shall not exceed at the point of discharge, 0.1 gr/dscf. [District Rule 4201, 3.1] Federally Enforceable Through Title V Permit
- 24. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [District Rule 4801 and Kern County Rule 407] Federally Enforceable Through Title V Permit
- 25. If the IC engine is fired on certified natural gas, then permittee document sulfur content by maintaining file copies of all natural gas bills or supplier's certification of sulfur content. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
- 26. If the IC engine is not fired on certified natural gas, then the sulfur content of the natural gas being fired in the engine shall be tested using ASTM D 3246 or double GC for total sulfur content. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
- 27. If the engine is not fired on certified natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
- 28. Leaks from valves, connectors, and other components (not including compressor seals) shall be defined as a reading of methane on a portable hydrocarbon detection instrument in excess of 100 ppmv above background when measured as close as possible to the potential source. [District NSR Rule] Federally Enforceable Through Title V Permit
- 29. Leaks from compressor seals shall be defined as a reading of methane on a portable hydrocarbon detection instrument in excess of 500 ppmv above background when measured as close as possible to the potential source. [District NSR Rule] Federally Enforceable Through Title V Permit
- 30. Components shall be screened and inspected with a minimum of 25% of the components inspected each quarter. Any leak greater than 500 ppmy for compressor seals and 100 ppmy for valves, connectors, and other components, when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Method 21 or leaking at a rate of greater than 3 drops of liquid per minute, shall be repaired in a manner consistent with the procedures specified in Section 5.3 of Rule 4403. This requirement shall not apply to inaccessible or unsafe-to-access components as identified in the Operator Management Plan pursuant to Section 5.2.4 of Rule 4403. [District NSR Rule] Federally Enforceable Through Title V Permit
- 31. Components to be screened shall be identified and categorized according to the following equipment types: connectors, flanges, open-ended lines (sample connections, drains, bleed valves, etc.) pump seals, valves with visible actuators and other (pressure relief devices, compressor seals, meters, etc.). Components shall be further identified and categorized according to the following types of service: gas/light liquid and heavy liquid service. [District NSR Rule] Federally Enforceable Through Title V Permit
- 32. VOC content of gas processed shall not exceed 70% by weight. Permittee shall maintain a written record of VOC content (sampled not less than annually) and shall make such records available for District inspection upon request for a period of two years. [District Rule 1070 and District NSR Rule] Federally Enforceable Through Title V Permit
- 33. VOC content of gas shall be measured using ASTM D1945-96, EPA Method 25 or EPA Method 18 referenced as methane. [District NSR Rule] Federally Enforceable Through Title V Permit
- 34. The permittee shall record the inlet temperature to the catalytic converter on a daily basis. [District Rule 2520, 9.4.2 and 40 CFR 64] Federally Enforceable Through Title V Permit

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- 35. The inlet temperature of the catalyst shall be maintained between 750 F and 1250 F. [40 CFR 64] Federally Enforceable Through Title V Permit
- 36. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR Part 64.7. [40 CFR 64] Federally Enforceable Through Title V Permit
- 37. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR 64] Federally Enforceable Through Title V Permit
- 38. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR 64] Federally Enforceable Through Title V Permit
- 39. Permittee shall maintain an engine operating log, on a monthly basis, which includes the following information; total hours of operation, type and quantity of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance with Rule 4702. [District Rules 1070 and 2520, 9.4.2] Federally Enforceable Through Title V Permit
- 40. All records required by this permit shall be maintained for a period of five years and shall be made readily available for District inspection upon request. [District Rule 4702, 6.2.2 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
- 41. The permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
- 42. Written records of the engine idling time are not required. Compliance with idle-time limit shall be demonstrated by maintaining a copy of a work practice standard that includes the minimization of engine idling time. [District Rule 2520, 9.4] Federally Enforceable Through Title V Permit
- 43. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
- 44. The engine's oil and filter shall be changed every 2,160 hours of operation or every 12 months, whichever comes first. Permittee may utilize the oil analysis program specified in the Inspection and Maintenance (I&M) plan to extend the oil change requirement. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
- 45. The engine's air filter shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
- 46. The engine's hoses and belts shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

Location: LIGHT OIL WESTERN STATIONARY SOURCE, CA S-1548-174-11: Jul 22 2015 11:40AM - EDGEHILR

EXPIRATION DATE: 05/31/2016 PERMIT UNIT: S-1548-175-11

SECTION: NE32 TOWNSHIP: 298 RANGE: 21E

EQUIPMENT DESCRIPTION:

1,478 BHP WAUKESHA MODEL 7042 GSI NATURAL GAS-FIRED IC ENGINE WITH 3-WAY CATALYST, AIR/FUEL RATIO CONTROLLER, AND POSITIVE CRANKCASE VENTILATION SYSTEM DRIVING A GAS COMPRESSOR (SOUTH BELRIDGE COMPRESSOR STATION #50)

PERMIT UNIT REQUIREMENTS

- When this unit is not operated (dormant for Rule 4701 and 4702) the fuel line shall be physically disconnected from this unit. [District Rule 2080] Federally Enforceable Through Title V Permit
- A source test to demonstrate compliance with NOx, CO and VOC emission limits shall be performed within 60 days of recommencing operation of this unit. [District Rule 4702] Federally Enforceable Through Title V Permit
- Upon seven days written notice to the District this engine may be designated as a dormant emissions unit or an active emissions unit. [District Rule 1070] Federally Enforceable Through Title V Permit
- The engine shall only burn natural gas with fuel gas sulfur concentration (as H2S) not exceeding 1.0 grains/100 dscf. [District NSR Rule] Federally Enforceable Through Title V Permit
- The engine shall be equipped with a positive crankcase ventilation (PCV) system or a crankcase emissions control device of at least 90% control efficiency. [District NSR Rule] Federally Enforceable Through Title V Permit
- This engine shall be equipped with an operational nonresettable elapsed time meter or other APCO approved alternative. [District Rule 4702, 5.6.6] Federally Enforceable Through Title V Permit
- VOC emissions from fugitive components shall not exceed 21.6 lb VOC per day. [District Rule 2201] Federally Enforceable Through Title V Permit
- All Rule 4409 applicable components associated with the compressors shall comply with all Rule 4409 requirements listed in the facility wide permit. [District Rule 4409] Federally Enforceable Through Title V Permit
- Emissions from IC engine shall not exceed any of the following: NOx (as NO2) 25 ppmv @ 15% O2, VOC 30 ppmv @ 15% O2, CO - 70 ppmv @ 15% O2, PM10 - 0.003 g/hp-hr, or SOx (as SO2) - 0.0108 g/hp-hr. [District NSR Rule] Federally Enforceable Through Title V Permit
- 10. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Source testing emissions for this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (Amended December 16, 1993), of 3 thirty-minute test runs for NOx. [District Rules 4702 and 2520, 9.3.2] Federally Enforceable Through Title V Permit
- 11. District witnessed or approved compliance source testing for NOx, VOC, and CO emissions shall be demonstrated not less than once every 24 months. [District NSR Rule] Federally Enforceable Through Title V Permit
- 12. Source testing shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE These terms and conditions are part of the Facility-wide Permit to Operate.

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- 13. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
- 14. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
- 15. The following test methods shall be used: NOx (ppmv) EPA Method 7E or ARB Method 100, CO (ppmv) EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) -EPA Method 25 or EPA Method 18 referenced as methane, fuel gas sulfur content - ASTM D 3246 or double GC for total sulfur content, and EPA Method 21 for fugitive components. [District Rule 1081] Federally Enforceable Through Title V Permit
- 16. Emissions for this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (Amended December 16, 1993), of 3 thirty minute test runs for NOx and CO, [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
- 17. The permittee shall monitor and record the stack concentration of NOx (as NO2), CO, and O2 at least once every calendar month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702, 5.6.1.1, 5.6.9, and 6.5.7] Federally Enforceable Through Title V Permit
- 18. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the permitted emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1-hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4702, 6.5.4] Federally Enforceable Through Title V Permit
- 19. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702, 5.6.9, 6.5.7] Federally Enforceable Through Title V Permit
- 20. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702, 6.5.8] Federally Enforceable Through Title V Permit
- 21. This engine shall be operated and maintained in proper operating condition per the Inspection and Maintenance (I & M) plan submitted to the District. [District Rule 4702, 6.5 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

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- 22. The permittee shall update the I & M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I & M plan and must submit an updated I & M plan to the APCO no later than 14 days after the change for approval. The date and time of the change to the I & M plan shall be recorded in the engine's operating log. For modifications, the revised I & M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I & M plan at any time. [District Rule 4702, 6.5.9] Federally Enforceable Through Title V Permit
- 23. Particulate emissions shall not exceed at the point of discharge, 0.1 gr/dscf. [District Rule 4201, 3.1] Federally Enforceable Through Title V Permit
- 24. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [District Rule 4801 and Kern County Rule 407] Federally Enforceable Through Title V Permit
- 25. If the IC engine is fired on certified natural gas, then permittee document sulfur content by maintaining file copies of all natural gas bills or supplier's certification of sulfur content. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
- 26. If the IC engine is not fired on certified natural gas, then the sulfur content of the natural gas being fired in the engine shall be tested using ASTM D 3246 or double GC for total sulfur content. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
- 27. If the engine is not fired on certified natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
- 28. Leaks from valves, connectors, and other components (not including compressor seals) shall be defined as a reading of methane on a portable hydrocarbon detection instrument in excess of 100 ppmv above background when measured as close as possible to the potential source. [District NSR Rule] Federally Enforceable Through Title V Permit
- 29. Leaks from compressor seals shall be defined as a reading of methane on a portable hydrocarbon detection instrument in excess of 500 ppmv above background when measured as close as possible to the potential source. [District NSR Rule] Federally Enforceable Through Title V Permit
- 30. Components shall be screened and inspected with a minimum of 25% of the components inspected each quarter. Any leak greater than 500 ppmv for compressor seals and 100 ppmv for valves, connectors, and other components, when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Method 21 or leaking at a rate of greater than 3 drops of liquid per minute, shall be repaired in a manner consistent with the procedures specified in Section 5.3 of Rule 4403. This requirement shall not apply to inaccessible or unsafe-to-access components as identified in the Operator Management Plan pursuant to Section 5.2.4 of Rule 4403. [District NSR Rule] Federally Enforceable Through Title V Permit
- 31. Components to be screened shall be identified and categorized according to the following equipment types: connectors, flanges, open-ended lines (sample connections, drains, bleed valves, etc.) pump seals, valves with visible actuators and other (pressure relief devices, compressor seals, meters, etc.). Components shall be further identified and categorized according to the following types of service: gas/light liquid and heavy liquid service. [District NSR Rule] Federally Enforceable Through Title V Permit
- 32. VOC content of gas processed shall not exceed 70% by weight. Permittee shall maintain a written record of VOC content (sampled not less than annually) and shall make such records available for District inspection upon request for a period of two years. [District Rule 1070 and District NSR Rule] Federally Enforceable Through Title V Permit
- 33. VOC content of gas shall be measured using ASTM D1945-96, EPA Method 25 or EPA Method 18 referenced as methane. [District NSR Rule] Federally Enforceable Through Title V Permit
- 34. The permittee shall record the inlet temperature to the catalytic converter on a daily basis. [District Rule 2520, 9.4.2 and 40 CFR 64] Federally Enforceable Through Title V Permit

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- 35. The inlet temperature of the catalyst shall be maintained between 750 F and 1250 F. [40 CFR 64] Federally Enforceable Through Title V Permit
- 36. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR Part 64.7. [40 CFR 64] Federally Enforceable Through Title V Permit
- 37. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR 64] Federally Enforceable Through Title V Permit
- 38. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR 64] Federally Enforceable Through Title V Permit
- 39. Permittee shall maintain an engine operating log, on a monthly basis, which includes the following information; total hours of operation, type and quantity of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance with Rule 4702. [District Rules 1070 and 2520, 9.4.2] Federally Enforceable Through Title V Permit
- 40. All records required by this permit shall be maintained for a period of five years and shall be made readily available for District inspection upon request. [District Rule 4702, 6.2.2 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
- 41. The permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
- 42. Written records of the engine idling time are not required. Compliance with idle-time limit shall be demonstrated by maintaining a copy of a work practice standard that includes the minimization of engine idling time. [District Rule 2520, 9.4] Federally Enforceable Through Title V Permit
- 43. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
- 44. The engine's oil and filter shall be changed every 2,160 hours of operation or every 12 months, whichever comes first. Permittee may utilize the oil analysis program specified in the Inspection and Maintenance (I&M) plan to extend the oil change requirement. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
- 45. The engine's air filter shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
- 46. The engine's hoses and belts shall be inspected every 2,160 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit